FORM 1

COVER SHEET
NEW DEGREE PROGRAM PLANNING NOTIFICATION OF INTENT
(PLANNING NOI)

Program Information

Program Name: Computing and Software Systems

Institution Name: University of Washington, Bothell

Degree Granting Unit: University of Washington, Bothell

Degree: B. A. (Applied Computing) **Level:** Bachelor **Type:** Arts

Major: Applied Computing **CIP Code:** 11.0101

Minor: See statement below

Concentration(s): None

Proposed Start Date: Autumn Quarter, 2007

Projected Enrollment (FTE) in Year One: 20 FTE **At Full Enrollment by Year:** 2010: 80 FTE

Proposed New Funding: YES

Funding Source: **X** State FTE __ Self Support __ Other

Mode of Delivery

X Single Campus Delivery (location) University of Washington, Bothell

__ Off-site (locations) _____

__ Distance Learning (format) _____

Substantive Statement of Need

See Attachment 1

Contact Information (Academic Department Representative)

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Attachment 1

Substantive Statement of Need

Bachelor of Arts in Applied Computing

-- A New Degree Proposal from the University of Washington, Bothell --

Overview: ***The Bachelor of Arts in Applied Computing*** is for students who wish to pursue careers in disciplines that rely on advanced information and computationally-intensive systems. This degree program is different from more traditional, theory-based computer science or software engineering degree programs because it emphasizes application within particular knowledge areas that may leverage the benefits of computing. Students will be required to take core courses in computing *and* identify a specialty area outside of computing (e.g., nursing, education, science, and/or the arts). This degree addresses the regional workforce needs of "technology-enabled" organizations (i.e., companies/groups that rely on and/or will directly benefit from the use of advanced technologies) to meet their specific goals and objectives.[1]

Specific Need: There is a shortage of computing professionals that have education and experience in the application of computing systems AND the requisite background to understand and work within a specific knowledge domain. The recent Higher Education and Coordinating Board's needs assessment report shows that the gap between the State of Washington's baccalaureate degree production in information technology-related fields and actual workforce demand is increasing.[2] The report describes a clear long-term need for additional computer science/computer engineering graduates; it also describes a critical need for advanced technology workers in areas such as health care, geographic information systems, knowledge management systems, biotechnology and/or media/film – to name a few. To be competitive in the global economy requires individuals who are skilled adopters/implementers of technology – and are able to customize hardware and software to meet the specific disciplinary needs of the organization. This proposed BA in Applied Computing will provide students with the necessary education and experience to meet this need.

Examples: Below are some specific examples of how this degree will benefit students. For instance, completion of the BA in Applied Computing with an emphasis in:

- Geography – qualifies the graduate for a position as a Geographical Information Systems (GIS) Analyst.
- Film/Drama – qualifies the graduate for video editing, animation, audio engineering, and other technology-dependent roles within this job sector.
- Public Health/Nursing/Radiology – qualifies the graduate to work in the growing specialty field of health care informatics.
- Humanities/Social Sciences – qualifies the graduate to work in such areas as knowledge management systems (KMS), enterprise resource planning (ERP), and/or customer relationship management (CRM).
- Education – qualifies the graduate for technology transfer and systems development for K-12 initiatives.
- Business – qualifies the graduate for technical sales/consulting engineer.

Program Requirements: The BA in Applied Computing will require completion of a core set of courses that emphasize database design, integration of web-based systems, knowledge systems, network design, technical writing and systems analysis methods. Students must also identify a core knowledge domain (25 or more credits) that is approved by the department to represent a specialty knowledge area (e.g., via an existing minor, concentration or other approved domain pathway) for each student. Students will also complete a senior project that demonstrates their ability to combine computing knowledge with their domain expertise.

Resource Requirements: The BA in Applied Computing will leverage existing courses and infrastructure of the Computing and Software Systems (CSS) program. Approximately five new (or modified versions of

existing) courses will need to be created plus a new Senior Seminar project course. We anticipate one new staff position (1.0 FTE) and a dedicated faculty line (1.0 FTE). Details of these new roles will be outlined upon completion of the full program proposal. First year student enrollment targets are for 20 FTE using a cohort model (i.e., for core courses) – with an expected new cohort starting each year. The program will be designed as a two-year program available to qualified UWB students and community college transfer students. Full enrollment is anticipated by 2010 with an estimate of 80 FTE. A detailed, full proposal is in progress.

Cited References:

[1]*Reconceptualizing the Information Technology Workforce: Challenges and Opportunities for Education and Industry*. Technical Report for the Workforce Training and Education Coordinating Board (Erdly, William and Howland, Joy). December, 2003.

[2] *State and Regional Needs Assessment Report*. Washington Higher Education Coordinating Board (October 2005).

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